

ii) a portion of an immunoglobulin, wherein the portion specifically binds with KDR,
and

iii) a conjugated vascular endothelial growth factor,

thereby obtaining a KDR⁺ cell population that is enriched for long-term repopulating HSCs.

9. ~~10.~~ (Twice Amended) The method of claim 1, wherein the reagent is a
conjugated vascular endothelial growth factor.

~~10.~~ ~~11.~~ 18. (Thrice Amended) A method of preparing long-term repopulating human
HSCs, the method comprising isolating hematopoietic progenitor cells (HPCs) from a human
hematopoietic tissue and separating HPCs that express KDR on their surface (KDR⁺ HPCs)
from HPCs that do not express KDR on their surface using a reagent selected from the group
consisting of

i) an antibody that specifically binds with KDR,

ii) a portion of an immunoglobulin, wherein the portion specifically binds with KDR,
and

iii) a conjugated vascular endothelial growth factor,

whereby the isolated KDR⁺ HPCs are enriched for long-term repopulating HSCs.

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~~34.~~ 51. (Thrice Amended) A method of expanding long-term repopulating human
HSCs, the method comprising isolating HSCs that express KDR on their surface (KDR⁺ HSCs)
from a human hematopoietic tissue using a reagent selected from the group consisting of

i) an antibody that specifically binds with KDR,

ii) a portion of an immunoglobulin, wherein the portion specifically binds with KDR,
and

iii) a conjugated vascular endothelial growth factor

and incubating the HSCs with vascular endothelial growth factor to expand the HSCs.

36. ~~69.~~ (Thrice Amended) A method of isolating a stem cell capable of giving rise
to at least one of a muscle cell, a hepatic oval cell, a bone cell, a cartilage cell, a fat cell, a

tendon cell, and a marrow stroma cell, the method comprising isolating a hematopoietic cell that expresses KDR on its surface from a human hematopoietic tissue using a reagent selected from the group consisting of

- i) an antibody that specifically binds with KDR,
- ii) a portion of an immunoglobulin, wherein the portion specifically binds with KDR,
- and
- iii) a conjugated vascular endothelial growth factor,

thereby isolating the stem cell.

41 80. (Amended) A method of obtaining a cell population enriched for long-term repopulating human hematopoietic stem cells (HSCs), the method comprising isolating hematopoietic cells from a human hematopoietic tissue and separating cells that express KDR on their surface but do not express a late marker on their surface from cells that either do not express KDR on their surface or express a late marker on their surface, the isolation method comprising using a reagent selected from the group consisting of

- i) an antibody that specifically binds with KDR,
- ii) a portion of an immunoglobulin, wherein the portion specifically binds with KDR,
- and
- iii) a conjugated vascular endothelial growth factor,

thereby obtaining a cell population that is enriched for long-term repopulating HSCs.

42 83. (Amended) A method of preparing long-term repopulating human HSCs, the method comprising isolating cells that express KDR on their surface and do not express a first early marker on their surface (KDR^{+} early $^{-}$ cells) using, sequentially in either order, an antibody which specifically binds with the first early marker and a reagent selected from the group consisting of

- i) an antibody which specifically binds with KDR,
 - ii) a portion of an immunoglobulin, wherein the portion specifically binds with KDR,
 - and
 - iii) a conjugated vascular endothelial growth factor.
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